Bridge Inspection

Bridge File Number	75193 W-2 Bridge	Form Type	PSR
Year Built/Year Supstr	1961/1961	Lot No.	4
		Inspector Name	Eric Carcoux
Bridge or Town Name	SPRUCE GROVE	Inspector Class	BR CLS A
Located Over	CNR	Assistant Name	
Located On	16A:16 L1 0.998	Assistant Class	
Water Body Cl./Year		Inspection Date	10-Aug-2012
Navigabil. Cl./Year		Data Entry By	Theresa Lacusta
Legal Land Location	SW SEC 6 TWP 53 RGE 26 W4M	Data Entry Date	18-Sep-2012
Longitude, Latitude	-113:50:05, 53:32:36	Reviewer Name	Stew Hagan
Road Authority	Alberta Transportation (AIT)	Review Date	05-Sep-2012
Contract Main. Area	CMA11	Dept. Reviewer Name	Brent Herrick
Clear Roadway/Skew	11.6 / -45 deg. (LHF)	Dept. Review Date	09-Oct-2012
AADT/Year	26,380 / 2011 (A)	Follow-Up By	
Road Classification	RAD-412.4-120		
Detour Length (km)	1		

Allowable Load (t):	Single	CS1 43 GIRDER	Semi	CS2 56 GIRDER	Train	CS3 74 GIRDER	---> On Critical Spans --->Critical Member
Design Loading:		HS20					---> Primary Span

Posting Information

Required Vert. Clearance Posting (m)											
Posted Vertical Clearance (Y/N)				No							
Posted:	Lane	NB	On Bridge (m)		In Advance (Y/N)		Lane	SB	On Bridge (m)		In Advance (Y/N)
Remarks	Not required.										

Required Load Posting (t)			Single		Semi		Truck Train	
Posted Loading (t)			Single		Semi		Truck Train	
Posted:	Lane	NB	At Junction (Y/N)		In Advance (Y/N)		At Bridge (Y/N)	
Posted:	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N)	No
Remarks	Not required.							

Hazard Marker At Bridge (Y/N)	No
Remarks	Not required.
Other Sign Types	Information, Speed.

Utilities (Located at)

Utility Attachments	POWER UTILITIES-POWER LINE		
Telephone	North r/w.	Gas	
Power	2 wires North r/w.	Municipal	
Others		Problem (Y/N)	No
Remarks	Power from North r/w comes to structure for cathodic protection.		

Approach Road

		Last	Now	Explanation of Condition
Horizontal Alignment		6	6	Road is on a horizontal "S" curve with a crest curve limiting sight distance.
Vertical Alignment		6	6	
Roadway Width (m)	11.400			
Approach Bump		6	6	
Guardrail (Y/N)	Yes			
Guardrail		6	6	
Length (m)	45.600			
Current Standard (Y/N)	Yes			
Termination Type	Turned Down			
Drainage		6	6	
Approach Road General Rating		**6**	**6**	

Superstructure

Bridge Component				Last	Now	Explanation of Condition
(Primary Span : **PO, 3 Spans, Lengths(m): 19.5-19.5-19.5, A-Ident Number:**)						
Special Features						
Special Feature				N	N	Locked - no key.
(SType : **CATH PROTECTION**)						
Special Feature					X	
(Type :)						
Wearing Surface/Deck Top Detail Ratings						
	N (%)	1 (%)	2 (%)	3 (%)		
Last						
Now						
Wearing Surface				8	7	SF W/Fibre
(Material Type : **CONCRETE**)						
(Thickness(mm) : **150**)						
Lateral Connection Problem (Y/N)	No					
Deck Top				N	N	
Deck Rideability				7	7	
Deck Joints				8	7	
Temperature (deg. C)	22					
(Expansion Type : **GLAND (WABO-MAUER, TRANSFLEX, ETC)**)						
(Fixed Type :)						
Gap Size (mm)	Gap Location					
73	W. abut					
80	W. pier					
74	E. pier					
75	E. abut					
Deck Drainage				7	7	No deck drains.
Drains Clogged (Y/N)	No					
Curbs/Median				8	7	
(Curb Type : **Standard**)						
Scaling (Percent Area)	0					
Bridge Rail				8	7	
(Type : **GALVANIZED STEEL BRIDGE TUBE**)						
Bridge Rail Posts				8	7	
(Type : **GALVANIZED POST STEEL;GALVANIZED POST STEEL**)						
Bridge Rail/Posts Coating				8	7	
(Type : **GALVANIZED**)						
Sidewalk				X	X	
Girder Detail Ratings						
	N (count)	1 (count)	2 (count)	3 (count)		
Last						
Now						
Girders				5	5	Crack/chips at end of shoe plate, typical.
Cracking (Y/N)	Yes					
Spalling (Percent Area)	0					
(Number Of Girders : **21**)						

Superstructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
(Primary Span : **PO, 3 Spans, Lengths(m): 19.5-19.5-19.5, A-Ident Number:**)				
Diaphragms/Cross Frame		6	6	
Bearings		4	5	
Temperature (deg. C)	22			
(Expansion Type : **SLIDING PLATE**)				
(Fixed Type : **PINNED BEARING**)				
Coating Adequate (Y/N)	Yes			
Functioning (Y/N)	Yes			
Deck Underside		5	5	Stained from train exhaust. 2 forms left from deck repair. Rust and salt stains in isolated areas. Narrow crack @ span 1. Narrow crack between G4 & G5 at span 3.
Stains (Percent Area)	5			
Span Alignment Problems				
Vertical (Y/N)	No			
Horizontal (Y/N)	No			
Superstructure General Rating		**5**	**5**	

Substructure				
Bridge Component		**Last**	**Now**	**Explanation of Condition**
Abutments				
Bearing Seats/Caps		6	6	
(Type : **CONCRETE**)				
Backwalls/Breastwalls		6	6	
Wingwalls		6	6	
Piles		N	N	
Paint/Coating		X	X	
Abutment Stability		6	6	
Scour/Erosion		6	6	
Piers/Bents				
(Type : **PIER-COLUMN**)				Underside of pier caps has rust stains from insufficient cover.
Bearing Seats/Caps		5	5	
(Type : **CONCRETE**)				
(Total Number of Bearing Piles : **7:7**)				
Pier Shaft/Piles		6	6	
Bracing/Struts/Sheathing		X	X	
Nose Plate		X	X	
Paint/Coating		X	X	
(Colour Description :)				
(Colour Code :)				
Pier Stability		5	5	Slope protection jammed against piles at toe of East slope.
Scour		X	X	
Debris (Y/N)	No			
Substructure General Rating		**5**	**5**	

Structure Usage			
	Last	Now	Explanation of Condition
Grade Separation			
Road Alignment	X	X	
Traffic Safety Features	X	X	
Type			
Slope Protection	5	5	The bottom 2 sections are buckling on West side & settling on the East side. East abutment slabs are beginning to separate.
(Type : **CONCRETE; CONCRETE**)			
Bank Stability	5	5	
Drainage	7	7	
Grade Separation General Rating	**5**	**5**	

Maintenance Recommendations						
Inspector Recommendations	Year	Inspector Comments	Department Comments	Target Year	Est. Cost	Cat #
REPAIR/REPLACE BRIDGE RAIL						
GALVANIZE/PAINT BRIDGE RAIL						
SEAL CURBS						
PATCH DECK						
SEAL DECK						
OVERLAY DECK						
REPAIR/REPLACE DECK JOINTS						
RESET/ PAINT BEARINGS						
WASHING						
SHOTCRETE REPAIRS						
REPAIR ABUTMENT SCOUR/EROSION						
PLACE ADDITIONAL RIP RAP						
REMOVE DRIFT ACCUMULATION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						
OTHER ACTION						

Structural Condition Rating (Last/Now) (%)	**55.6/55.6**	**Sufficiency Rating (Last/Now) (%)**	**57.7/57.7**	Est. Repl. Yr	2035	Maint. Reqd. (Y/N)	No

Special Comments for Next Inspection		Department Comments	

Maintenance Reviewed By		Date		Estimated Total	0

Proposed Long-Term Strategy			
On 3-Year Program (Y/N)			
Proposed Action			
Previous Inspector's Name	Shane Hall	Previous Assistant's Name	
Next Inspection Date	10-May-2014	Previous Inspection Date	06-Oct-2010
Inspection Cycle (Default) (months)	21		
Comment			